LIPOSTHENUS LATREILLEI (KIEFFER) (HYM.: CYNIPIDAE) AND TORYMUS CINGULATUS NEES (HYM.: TORYMIDAE): INSECTS NEW TO IRELAND

J. P. O'CONNOR

National Museum of Ireland, Kildare Street, Dublin 2, Ireland.

ON 4 JUNE 1999, the author visited the Burren, Co. Clare, to search for gall insects and mites. This is one of the most interesting areas in Ireland for the botanist. The Burren is an enigma for at first glance, there appears to be nothing but a barren expanse of limestone. However, it harbours wonderful plants. There is a juxtaposing of species which frequent lands within the Arctic Circle and others that are of southern extraction (Webb and Scannell, 1983; Nelson, 1991). These include mountain avens *Dryas octopetela* and dense-flowered orchids *Neotinea maculata*. Despite this richness, little work has been done on the plant galls. One of the best places to enjoy the Burren flora is the 10 kilometre coastal strip meandering from Black Head to Poulsallagh (Cabot, 1999). The author concentrated his efforts in this area where he had already discovered other rare Irish insects (e.g. O'Connor and O'Connor, 1982).

Along the roadside near Black Head (Irish grid reference M1410), the galls of the cynipid Liposthenus latreillei (Kieffer) were discovered on ground ivy Glechoma hederacea L. This species is new to Ireland. The abundant galls were in varying stages of development ranging in size from 4 mm to 18 mm. The plants were growing on both sides of the base of a stone wall and were mixed in amongst brambles Rubus fruticosus L. The discovery of L. latreillei was surprising, for the author had searched for this species in various other parts of Ireland with no success, despite examining thousands of plants. The distinctive galls were identified using Eady and Quinlan (1963) and Dauphin and Aniotsbehere (1993). Subsequent dissection of one of the larger galls revealed a cynipid pupa and a selection of the more mature galls were placed in plastic bags in an attempt to rear the causers, although the adults are known to fly in March and April. According to Darlington (1975), L. latreillei is a widespread species which is common locally in Britain.

On 21 July, a chalcid emerged from the largest gall. Using Graham and Gijswijt (1998), it was identified as a male torymid belonging to the species *Torymus cingulatus* Nees, an insect new to Ireland. This is a known parasitoid of *L. latreillei* and the only torymid known to attack that species. *T. cingulatus* has only been previously recorded from Austria, Czech Republic, Great Britain, Italy and the Netherlands.

In Askew's (1961) key to the Chalcidoidea associated with oak galls in Britain, *T. cingulatus* is included as a parasitoid of the galls of *Cynips divisa* Hartig, *C. longiventris* Hartig, *Biorhiza pallida* (Olivier), *Andricus anthracina* (Curtis), *A. curvator* Hartig and *A. kollari* (Hartig) (Hym.: Cynipidae). However this is a misidentification of the relevant torymid which is not referable to the true *T. cingulatus*. Instead, the correct taxon is *Torymus geranii* (Walker) (Graham & Gijswijt, 1998).

Voucher specimens have been deposited in the National Museum of Ireland.

Acknowledgements

The author is grateful to John, Ann and Kevin O'Connor for their assistance.

References

- Askew, R. R., 1961. On the biology of the inhabitants of oak galls of Cynipidae (Hymenoptera) in Britain. *Trans. Soc. Brit. Ent.* 14: 237-268.
- Cabot, D., 1999. Ireland. A natural History. The New Naturalist, 84. London.
- Darlington, A., 1975. The pocket encyclopaedia of plant galls in colour. Second edition. London.
- Dauphin, P. & Aniotsbehere, J. C., 1993. Les galles de France. Mémoires de la Société Linnéenne de Bordeaux. 2.
- Eady, R. D. and Quinlan, J., 1963. Hymenoptera. Cynipoidea. Key to families and subfamilies and Cynipinae (including galls). *Handbk. Ident. Br. Insects* 8(1a): 1-81.
- Graham, M. W. R. de V. and Gijswijt, M. J., 1998. Revision of the European species of *Torymus* Dalman (s. lat.) (Hymenoptera: Torymidae). *Zool. Verh. Leiden* 317: 3-202.
- Nelson, E. C., 1991. The Burren. A companion to the wildflowers of an Irish limestone wilderness. Aberystwyth and Kilkenny
- O'Connor, J. P. and O'Connor, M. A., 1982. *Tinodes unicolor* (Pictet) and *Metalype fragilis* (Pictet) (Trichoptera: Psychomyiidae) discovered in the Burren, Co. Clare. *Entomologist's Gaz.* 33: 192-194.
- Webb, D. A. and Scannell, M. J. P., 1983. Flora of Connemara and the Burren. Cambridge.

The proboscis: the "Achilles heel" of hawk-moths in southern Africa

In the early months of 1950, whilst employed in Bulawayo, southern Rhodesia (now Zimbabwe), each evening I passed some large yellow tubular-flowered ornamental shrubs. Several large species of hawk-moth spent the short twilight hovering at the flowers to imbibe nectar; they included *Agrius convolvuli* (L.), *Daphnis nerii* (L.) and *Hippotion celerio* (L.) – well-known as immigrants to Britain. Commonly, when near a bush, a persistent fluttering noise, which did not abate upon approach, was found to emanate from a hawk-moth which had been entrapped by its proboscis, courtesy of a large praying mantis (Dictyoptera: Mantodea). This occurred almost every evening and in the morning a scattering of tell-tale wings beneath the bush bore witness to the success of the mantids (although bats may also have taken advantage of the situation?).

I have looked for evidence of this phenomenon elsewhere, but without success. Nor did I encounter it at Nassau, Bahamas, where a frequent evening pastime was to make the round of accessible *Frangipani* and other flowering shrubs where feeding hawk-moths would be silhouetted against the night sky immediately after dusk. In 1992, I revisited Louis Trichardt, northern Transvaal, but although the flowering shrubs in the hotel gardens attracted hawk-moths each evening they remained unmolested. Under somewhat different circumstances in a garden near Kpalimé, Republic of Tongo, the previous year, were several large specimens of what were possibly the same species of shrub that I had found in Zimbabwe, or at least a close relative. These were attended by the large black-and-yellow butterfly *Papilio menestheus* Drury, which imbibed at the flowers with rapidly vibrating wings,